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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/725,586

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EXAMINER

LEE, JOHN W

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

03/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/725,586	Applicant(s) YU, PIL-HO	
	Examiner JOHN Wahnkyo LEE	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 11-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Based on the interview granted on September 24, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract has 202 words. It is required to fix this problem.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 4, 6 and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 4, 6, and 9 are reciting a subject

Art Unit: 2624

matter not disclosed in the specification as follows: Claim 1- "a plurality of the divided picture" (line 3), "a delay separately delaying" (lines 4), and "arranged absolute difference" (line 8); claim 4-"second absolute difference as the picture noise" (lines 1-2); claim 6- "previous delayed picture of the image signal" (line 5); claim 9-"a second absolute difference" (line 2). It is required for the applicant to fix this problem to amend the claims or clarify where these subject matter is disclosed in the specification.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Hann et al. (US 5,657,401) in view of Yamamoto (EP 0961230 A2), and further in view of Wittig (US 2004/0066468).

Regarding claim 1, De Hann discloses an apparatus for measuring noise (abstract; Fig. 1 and Fig. 3), comprising: a delay separately delaying the pictures of the input image signal by one period (Fig. 2-11 and Fig. 4-11; col. 3, line 23). However, De Hann does not disclose all the claim limitation of claim 1. Instead of De Hann, Yamamoto discloses a block average calculator dividing individual pictures of an input image signal (Fig. 1-201; paragraph [0028], "first image") into blocks (Fig. 1-202 and

Art Unit: 2624

Fig. 2-S1; paragraph [0028], "divided into MXN tile areas") and calculating average luminance values for a plurality of the divided blocks (Fig. 2-S2; equations (1)-(3); paragraph [0031], "average luminance (pixel value) ... with respect to each of MXN tile areas"), an SAD calculator calculating an absolute difference between an average luminance value (equation (7); paragraph [0034]) of a present picture (equations (4)-(6); paragraph [0032], "... average luminance of the source text image") and an average luminance value of a picture of the image signal delayed by the delay (equations (1)-(3); paragraph [0031], "luminance average of the destination tile area"). Wittig discloses a picture noise selector selecting a desired number-th arranged absolute difference, of a plurality of calculations from the SAD calculator for the input image signal, as a picture noise when absolute differences calculated by the SAD calculator are arranged, in turn, from a smallest value toward a largest value (Figs. 1-14 and 1-16; paragraphs [0013]-[0014]; claims 1-2 and 7-8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yamamoto's invention and Wittig's invention in De Hann's invention to provide a more reliable method and apparatus for noise measurement as suggested by De Hann (col. 1, lines 49-50).

Regarding claim 2, De Hann further discloses a comparator comparing whether the average luminance value calculated by the block average calculator is within a desired range, wherein the SAD calculator calculates the absolute difference upon the comparator determining that the average luminance value is

Art Unit: 2624

within the desired range (Figs 1-7 and 4-7, “comparator”; abstract; col. 3, lines 4-16 and 50-67; col. 4, lines 1-13; claims 1 and 9).

Regarding claim 3, Wittig further discloses comprising a regional noise selector selecting a desired arranged number-th picture noise as a regional noise when picture noises selected from pictures of the image signal in a desired region are arranged, in turn, from a smallest one toward a largest one (Fig. 1-14 and 1-16; paragraph [0013]-[0014]; claims 1-2 and 7-8).

Regarding claim 4, Wittig further discloses that the picture noise selector selects a second absolute difference as the picture noise (Fig. 1-14 and 1-16; paragraph [0013]-[0014]; claims 1-2 and 7-8). Based on the disclosure that selecting one of the noise estimate value from the noise estimate selector block, it is inherent and readily apparent that the noise can be any values from the counters such as the second one.

Regarding claim 5, Wittig further discloses that the regional noise selector selects a second picture noise as the regional noise (Fig. 1-14 and 1-16; paragraph [0013]-[0014]; claims 1-2 and 7-8). Based on the disclosure that selecting one of the noise estimate value from the noise estimate selector block, it is inherent and readily apparent that the noise can be any values from the counters such as the second one.

Regarding claim 6, claim 6 is analogous and corresponds to claim 1. See rejection of claim 1 for further explanation.

Regarding claim 7, claim 7 is analogous and corresponds to claim 2. See rejection of claim 2 for further explanation.

Art Unit: 2624

Regarding claim 8, claim 8 is analogous and corresponds to claim 3. See rejection of claim 3 for further explanation.

Regarding claim 9, claim 9 is analogous and corresponds to claim 4. See rejection of claim 4 for further explanation.

Regarding claim 10, claim 10 is analogous and corresponds to claim 5. See rejection of claim 5 for further explanation.

Conclusion

7. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN Wahnkyo LEE whose telephone number is (571)272-9554. The examiner can normally be reached on Monday - Friday (Alt.) 7:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Application/Control Number: 10/725,586

Page 7

Art Unit: 2624

Customer Service Representative or access to the automated information system, call
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jingge Wu/

Supervisory Patent Examiner, Art Unit 2624

/John Wahnkyo Lee/

Examiner, Art Unit 2624